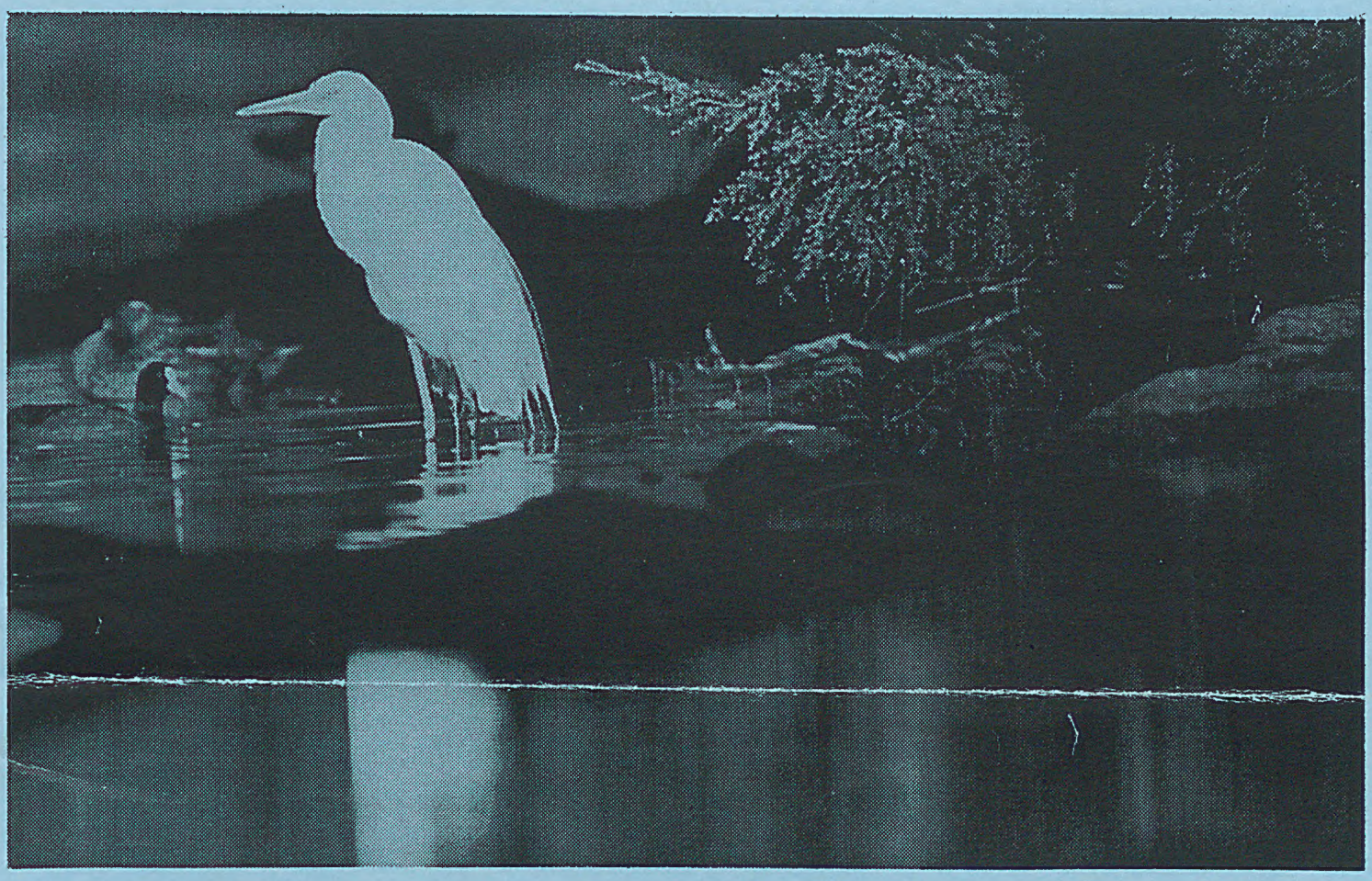
WHIRRAKEE

April 2001 Vol. 22 No. 3

Registered by Australia Post. Publication No. VBH4462



MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

Bendigo Field Naturalists Club Inc.

Address for correspondence: PO Box 396, Bendigo 3552

Office Bearers for 2000 - 2001

President	Barbara Pelczynska	Melaleuca Ave, Longlea	5439 3075
Senior Vice President	Matthew Comer	Main Road, Goornong	
Junior Vice President	Rod Orr	2 Cockerel Court, Bendigo	5443 5668
Secretary	Bill Holsworth	13 Nabilla Crs, Bendigo	5443 4063
Minute Secretary	Jane Cleary	24 Goynes Road, Epsom	5448 4396
Treasurer	Glenise Moors	Mandurang South Rd. Sedgwick	5439 6254
Membership Officer	Kate Lottkowitz	80 Piccaninny Rd, RSD Strathfieldsaye	5439 3157
Excursion organiser	Maurie Lewis		0407 427179
Syllabus organiser	Bill Holsworth	13 Nabilla Crs, Bendigo	5443 4063
Librarian	Diana Collier	31 Milroy Street, Bendigo	5443 0137
Whirrakee contacts	Tom Burton	Tannery Lane, Mandurang	5439 3028
	Sabine Wilkens	82 Somerville Street, Bendigo	5443 2797
		e-mail: s.wilkens@bendigo.latrobe.edu.au	

Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single $34; Family $40; Concession: Single $28.50; Family $34. *Whirrakee* subscription only is $34. These rates include GST.

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Golden Square Senior Citizens Building, Old High Street, Golden Square. Meetings start at 7:30pm and conclude with supper. The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month at 7:30pm. Members of the Committee are the Office Bearers listed above, together with the following members: Darren Green; Maurie Lewis; Kate Lottkowitz; Phil Robertson; Bob Ruddick

Excursions The assembly point for excursions is the Golden Square Senior Citizens Building, unless otherwise specified. Full-day excursions normally commence at 10am (usually on a Sunday); half-day excursions normally commence at 2pm and may be either on a Saturday or Sunday. Full-day or half-day excursions are usually held on the weekend following the General Meeting. Campouts are held several times each year, usually coinciding with long weekends or holiday periods.

The Bendigo Field Naturalists Club has one active sub-group:

Mammal Study Group: meets on the fourth Wednesday of the month at 7:30pm in the Golden Square Senior Citizens Building.

Chairman: John Burtonclay, Fadersons Lane, Mandurang (5439 5710)
Secretary: Bill Holsworth, 13 Nabilla Crs., Bendigo (5443 4063)
Equipment Officer: Maurie Lewis (0407 427179)

Front Cover: Photographer: Ian Flecknoe-Brown
This photo has been chosen more for the composition and the effect, rather than for the naturalist detail. The bird in the pond is an egret, but that is the extent to which it can be positively identified by a non-expert. There are three egrets in the Bendigo region, the Great Egret (*Ardea alba*), the Little Egret (*Ardea garzetta*) and the Intermediate Egret (*Ardea intermedia*). They are best identified when compared to each other with regards to their size, colour of beak and legs as well as their plumes. Simpson and Day (Field Guide to the Birds of Australia) note some interesting feeding behaviour of the Little Egret. Along with the Striated Heron, it will spread out one or both wings while standing in water and search for prey (frogs, fish, crustaceans, insects) in the shadows. This reduces glare and may attract small fish, as does shade from an overhanging branch. The Little Egret may also flick its wings to startle prey or treadle a foot, either to disturb prey or to attract prey to its yellow sole.

WHIRRAKEE

Monthly Newsletter of the Bendigo Field Naturalist Club

Vol. 22, No. 3, April 2001

Whirrakee takes its name from the Whirrakee Wattle (*Acacia williamsonii*) which is virtually endemic to the Bendigo region

CONTENT

Item	Contributor	Page
A Rare Daisy at Campbells Forest	Ray Wallace	3
Glider's Prospect Looking up	Bendigo Advertiser/15/3/01	3
Garden Working Bee	Barbara Pelczyinska	3
Jackass Flat	Peter Ellis	4
The Geckoes of the Bendigo District	Darren Green	7
The narrow view gives tunnel vision	Alistair Brown	8
From the Mailbag	Elaine Mathison	9
March General Meeting	Sabine Wilkens	10
Insects (and Spiders)	Jenny Shield	11
Native Bees create a buzz amongst conservationists	Roger Kavanagh	12
Some Interesting News from Washington		13

Authors are responsible for the accuracy of the information they use and also for any opinions expressed in their articles.
Contributions will be included as soon as possible after they are received, although articles received more than one week after the monthly General Meeting will probably be too late for inclusion in the next issue of *Whirrakee*.
Articles in *Whirrakee* may be reproduced, but permission should be obtained from the Bendigo Field Naturalists Club, and acknowledgment should be given to the author and the Club. Some back issues are still available on request.

Editors' Note
The first of our workshops, now held before each monthly general meeting, was planned to be about grass identification. However, due to family reasons it had to be cancelled and was replaced, at very short notice, with one on insect (and spider) collection and preservation. Thank you Jenny and Bill for organising this. The workshop was very well attended, it was a balmy night, some people crowded around the displays and demonstrations, other just chatted.....it all added up to a very pleasant event. Jenny's report just made it into this edition of Whirrakee (see page 11). A hard act to follow for the grass identification workshop which is now planned for the April meeting.

A Rare Daisy at Campbells Forest

Author: Ray Wallace

On a warm and sunny mid-October morning, a friend and I made an excursion to an area of white box – grey box woodland at Campbells Forest. The Crested Bellbirds were calling and Grey Shrike Thrush music seemed everywhere.

Whilst walking through, and unknown (to me) pale-leaved small daisy with lemon flowers started to appear. It occurred over an area of ca. 70 square metres, in places quite thickly.

I was puzzled by the plant but did not do anything further for a month when, on Bendigo Cup Day, I revisited the area and keyed the plant out as *Leucochrysum molle*. In between times I had taken Dianne Bish out to see the plant and she keyed it out to the same identification independently. According to Volume 4 of the *Flora of Victoria,* it is a rare species of the Northern Plains and had been collected at Mildura and Swan Hill, both pre-1900 collections, and at Serpentine in 1959, little had been recorded of the plant since.

An annual herb to 30 cm in height, the leaves are pale grey, and lemon sunray flowers a little over 1 cm across make it a very lovely little daisy.

There is now some action at Government level to acquire the area and preserve this rare little daisy which is regarded as vulnerable in Victoria.

Glider's Prospects Looking up

from the *Bendigo Advertiser* 15/3/01, p.6

The survival prospects of squirrel gliders will be improved with a partnership between the Department of Natural Resources and Environment and the Mammal Study Group of the Bendigo Field Naturalists.

The DNRE has provided nesting box materials, maps and a loan of a pocket-sized geographic positioning system to members of the Bendigo Field Naturalists for their work in the Torrumbarry Weir area.

Field Naturalists members Maurie Lewis, John Burtonclay will erect nesting boxes in the red gums of Gunbower State Forest.

"Enhancement of biodiversity is a two-way process", said Mr Lewis. "While the red gums provide essential habitat for the squirrel gliders, they, in turn, play an important role in keeping the red gums and wattles free of insect pests."

Monitoring of squirrel gliders' use of the nesting boxes will help to map their distribution and improve understanding of their habitat requirements.

World Forestry Day on March 21 has been another way in which the biodiversity of forest environments was celebrated.

Garden Working Bee

Author: Barbara Pelczynska

The next Garden Working Bee to mulch the remainder of area 4 will be on Sunday 27th May 2001 at 9am. The bobcat will start at 10am, which will give us a one hour start to spread the newspapers.

Please mark this date in your calendar and come to help. The more people will come the quicker we will finish and therefore have plenty of time for a long and enjoyable morning tea and friendly chat with friends.

As you have probably noticed, many plants have died in the garden because of the prolonged drought, so in June, and possibly July, they will have to be replaced. It is amazing how well the indigenous plants survive the very harsh conditions. After this very hot summer, the garden, on the whole, still looks good.

Jackass Flat

Author: Peter Ellis

At a recent meeting interest was expressed in the origin of the Jackass Flat Wildflower reserve, which is situated beyond Holdsworth Rd and ADI (formerly the Bendigo Ordnance Factory). It is bounded approximately by parts of Jacob St, Collins or Crane St, Prouses Rd, Watson St and Cohn St and is situated between Sydenham Gardens estate from the south-east and Jackass Flat Reservoir to the north-east.

This area was a stamping ground of the early members of the Bendigo Field Naturalists Club in its formative years. It was a favourite haunt of one member of the time, the late Heck Cahill who lived in Arnold St. Heck was a keen grower of Australian Native Plants and in particular the Semmen's double form of Bendigo Waxflower of which he had propagated and grown a magnificent specimen. Heck was also a craftsman working wood and pieces of branch and tree roots into native animal shapes. He was also a capable demonstrator of Aboriginal skills such as lighting fire by rubbing sticks together and in making woomeras and boomerangs. I have one of his woomeras, which he said was made from Cherry Ballart (*Exocarpus cupressiformis*), but when displaying it recently at a craft show in Canberra experts said it was Rose Sheoak (*Casuarina torulosa*). It may be I got that wrong, Heck did have Rose Sheoak growing.

I regularly visited Heck as a keen young grower of native plants and this was before I joined the BFNC, so it was 1963 or earlier. He would take me across to the bushland behind the Ordnance Factory and we rode our bikes in from Cohn St to particularly view Sticky Boronia (*Boronia anemonifolia*), Whirrakee Wattle (*Acacia williamsoni)* and Crimson Honeymyrtle (*Melaleuca wilsoni)* that grew in separate localised areas within the bush. He also took me across the road to the other part which was reserved and had good shows of Rosy Heath Myrtle (*Baeckea ramossisima)*. That is how I came to know the area by locality, but not by any name.

In the early 1970's when I was Secretary of the club, movements were afoot by the Bendigo Trust to establish a Chinese Village, Dai Gum San. Some correspondence about various possible sites and any ecological values were sought from us. (Environmental Impact Statements were a very new thing then) In particular the sites were narrowed down to three, the original Bridge St section of China Town being ignored or abandoned for some reason. At any rate one site was on the White Hills area near the then tip and Empire Rubber, another at Devonshire Gully that extended behind California Gully through to near the Eaglehawk tip, and the third at Sydenham Gardens or Jackass Flat, both names in use. Sydenham Gardens was a new housing estate that had been developed between Holdsworth Rd and Jacob St. Part of the ruins of the old Sydenham Gardens Hotel with its Kookaburra emblem in the stain glass window were still standing at that time. The club made comments on the natural history values of all three sites, but when I arrived at the Sydenham Gardens area, came to realise I knew the area of bushland well and that it was extremely important from a natural history point of view. The club relayed its views to the Bendigo Trust of the importance, saying that it should not be cleared and made available for a Chinese Village at any cost. We were relatively neutral about the other two sites although in retrospect that might be different today. The club also pointed out that when it came to the stage prior to development an environmental impact study would be a necessity and that the authorities would certainly recognise its value and that it would surely be better to establish the Village at one of the other sites. However the Bendigo Trust had their minds set on the Sydenham Gardens area as the site. It was also a difficult time for the BFNC as we were up to our necks fighting for the Salomen's Gully area and having an enormous load in the conservation of the Whipstick and the result of the controversial introduction of the Interim Development Order. At this period of time, from memory, it was Mal Hopkins as President at first and then Rob Moors as President who shared a lot of the load on behalf of the club at these meetings with the Trust.

The rest is history of course but in the meantime and independent of the BFNC the residents of Jacob St had got wind of the Trust's plans and in no way did they want tourist development and despoliation of the bushland that adjoined their street. This came as a surprise to the BFNC, but a bigger surprise to the Bendigo Trust and the Bendigo City Council. Headed by one Shirley Mainstone, the residents formed a 'Save our Bushland Group' which proved invincible. Shirley Mainstone was a quiet lady; a teacher who also specialised in adult literacy night classes for those who could not read and who until then was virtually unknown in the broader

community. She had worked out all the legalities of the situation, contacted Government departments, users of the water from the races that were within the bushland, local Science Teachers Association etc etc. As Secretary of the club, I was asked to meet Shirley Mainstone on site to discuss and show her the significant flora of the area. When I arrived at the allotted time there were television crews and newspaper reporters. A day later my photograph standing alongside Shirley Mainstone was plastered across the front page of the Melbourne Sun. The then Mayor of Bendigo (think it was Dick Turner) was asking who this upstart of a Shirley Mainstone was. Think he already knew about me, I had wagged school a few times.

At any rate there was a close involvement with Shirley Mainstone and her Save Our Bushland Action Group over the next few months and a very terse meeting or two with the Bendigo Trust.

Finally, as had been predicted and forewarned, the Australia Conservation Council's legal representative took one look at the proposal, which was immediately vetoed, as a result of the Environmental Impact Study and other legal aspects. One of the shortfalls on behalf of both the City Council and the Bendigo Trust, is that they had publicly announced all sorts of development of the area, crown land, without first formalising the proposals with Government departments that were really the administrators. They had really shot themselves in the foot over that one.

On March 11th 1975, at the request of the Council, the Bendigo Field Naturalists Club in conjunction with the Save our Bushland Group submitted for the reservation of the entire area as the Jackass Flat Flora Reserve. As it was almost joined right through to the Whipstick near Apollo Hill, connected by uncommitted public land and Sewerage reserve between the two, I thought it worthy of preparing a Frank Robbins' style Whipstick map using the same numbers keying in the location of plants. Jack Kellam assisted me with this and the map and plant survey included in the submission. Jack Ipsen, Glenys Moors and Jack Kellam prepared the bird list. I don't recall when the actual reserve was gazetted, but probably later that year.

Flora and Fauna

Jackass Flat Flora Reserve has attractive stands of Box/Ironbark and a rich understorey of beautiful wildflowers amongst scrub that in parts where the Calytrix (*tetragona*) occurs is almost heathland in appearance whilst in other sections, particularly down the gully slopes, it is of almost impenetrable Melaleuca (*decussata*). Eighty species of plants were listed in one morning when Bob Allen recorded the first census. Bendigo Waxflower (*Philotheca verrucosa*) is particularly abundant and showy in spring as should be expected in line with similar areas within the city such as at Salomen's Gully and Faugh â Ballaugh. All of the hills encircling Bendigo were once a showpiece of this, the City Floral Emblem.

Actually the area has a good cross section of both typical flora of the forests to the south side and that of the Whipstick to the north. Sometimes they are intermingled such as with Golden Pennants (*Loudonia behrii)* and Dampiera (*D. lanceolata)* with Black Eyed Susan (*Tetratheca ciliata*) and Waxflower and in some they are quite specifically situated within one spot. The first gully and hill crest on the approach from Cohn St has stands of Whirrakee Wattle and at the end of October a magnificent show of Crimson Honeymyrtle. This is actually pictured on the back cover of Wildflowers of Bendigo. The next parallel gully running south from the second crest has a good stand of Sticky Boronia whilst beyond to the Crane St boundary Goldfield's Grevillea (*G.dryophylla*) and Shrub Violet (*Hybanthus floribundus*) become a feature in late winter. One or two Green Mallees (*Eucalyptus viridus*) are right on the boundary of that street at the entrance to the reserve. On the north corner of the reserve Silky Tea-tree (*Leptospermum myrsinioides*), not seen until reaching this corner, occurs in thick groves. Across the road in the satellite section Rosy Heath Myrtle puts on a fine show from late August to early October. A good variety of ground orchids can be found including Nodding Greenhoods *Pterostylis nutans*), Rusty Hoods (*P. biseta*), Sun orchids (e.g. *Thelymitra pauciflora*) and the Beard orchid (*Calochilus robertsoni*).

Thirty-five species of birds including several Crested Bell-Birds were listed on the day of the bird census and it was noted it had a good population of Grey Thrush and many Orioles, all noted song-birds. The Rufous and Golden Whistlers were also observed. Some of the smaller birds seen and recorded as either residential or known to nest in the area included the Superb Blue Wren, Buff Tailed and Brown Thornbill and the Weebill.

Eric Wilkinson would have provided us with details of the geology of the area which read:-

The topographical features of the area are a series of valleys and hills which overlook the City of Bendigo to the south. The rocks consist of folded alternating beds of sandstones, and shales or mudstones of Lower Ordovician Age (more than 500 million years ago). The bedding planes of the strata are inclined at a very steep angle, and the edges of this strata can be seen on the surface in many places, where they strike in a North-South direction.

Our late member, Alec Stone was well versed on the history of the settlement of the district and the Sydenham Gardens Hotel and Amusement area and detailed the connection with the local German community as well as the general Bendigo community. Herr Kraemer established the Sydenham Gardens in the latter part of 1853 and it became an important rendezvous area for outdoor amusements and the 'promenade', the first important occasion being on Christmas Day of that year. A store was erected in early 1854 on the property and later that year when hotels were licensed a hotel and Assembly Hall (public hall) established. In the same year a sports ground, a picnic reserve and further gardens were laid out, making the Sydenham Gardens the leading place for out-of-door entertainments in Sandhurst. The gardens were spread over an area of more than half an acre and eventually there were shady walks, archways, a wall of climbing roses, shrubs, trees and flowers of all kinds. Sited in the shady spots were seats where patrons of the hotel could relax in cool surroundings- the first, and probably the best, beer garden that Bendigo has ever had. Cricket and football matches were played on the sports ground at the rear of the hotel, pidgeon and starling shoots were held, and various other activities engaged in. Many visiting artists performed at the Sydenham Gardens Assembly Hall, as did local professional groups. Amateur companies performed, with the proceeds going to charity. There were also dances and balls held and often to the music of a German Band. These brass bands (tubas, trombones, saxhorns, flugelhorns, clarionets, bass drum and sometimes piccolo and flute) were popular in the goldfields days through to early in the 20th century, they were usually decked out in braided uniforms, sometimes with 'picklehaub' helmets and they often travelled around the countryside and towns playing selections on street corners and so on. They were especially sought after in the cities for the bigger balls. This was not only for their excellent dance music but to project the sound in the days before amplification when crowds numbered several thousand with up to 500 dancers on the floor at any one time. They were also frequently the prominent bands in the circuses.

Omnibuses travelled regularly from the city centre to the Sydenham Gardens. Herr Kraemer died in 1882 and the old wooden hotel of eleven rooms and bar was totally destroyed on 25th January 1898. A new building of brick was erected on the site but gradually the popularity of the Assembly Hall and the Gardens declined, particularly after Lake Weeroona was constructed.

At one time there was a large Chinese community nearby, with residences, shops, a few market gardens and a shrine. I would think Alec meant the Joss House in that reference. The origin of the name Jackass Flat is not known for certain, there was a stained glass window featuring a kookaburra in the remains of the Sydenham Gardens Hotel which was demolished as the housing estate expanded further at the time of the reservation of the nearby flora reserve. What a pity there had not been an effort to save the building & some of its surrounds.

A little alluvial mining was carried on in the gullies at the back of Sydenham Gardens, as was some quartz mining on the rises. However, the essential character of the original bush remains. It was once an area for much rubbish dumping and in the period of the campaign to save the bush and the final fencing of the reservation the BFNC held several working bees to remove the rubbish.

Most of the account of this story has been from the data in the original submission and my own recollections, but the Sydenham Gardens history section except for that of the German brass bands, is from the information supplied by the late Alec Stone. Actually Alec did independently through historical society connections in Melbourne give me the details of the German bands with their picklehaub helmets marching around the streets of Melbourne and playing selections on street corners. Apparently the young lads of the day used to follow the German bands and stand in front of them sucking oranges.

P.S. A recent conversation with Sandra Tunley who was a Jacob St resident in the 70's revealed the following which adds to the story:

The whole street were passionately fond of that bushland and united in the attack against its development, except for one resident at the far

end of Jacob St. She was Dick Turner's daughter and he as Mayor wanted by whatever means to have Dai Gum San on that 70 acre site during his term. Shirley Mainstone put her own money in on the legal action and needed to know how far she could go without breaking the law in stopping the Mayor, the council and the Trust. The Save Our Bushland Group had a deputation in Melbourne to Mr Borthwick, Minister for Conservation. He at first was not on side, but with the pre-empting of development by the Trust and Council over what was really Government administered Crown Land, and probably backed by the flora and fauna statistics and ecological significance statement provided by the residents from the Field Nats changed his mind quickly. (it was all a tactical error on behalf of the council of the day).

The Geckoes of the Bendigo District
Part 1: Introduction to Geckoes

Author: Darren Green

This article is an introduction to the family of geckos and is the first part of a series of articles on the geckos that occur within the Bendigo district (see BFNC books for map details of the Bendigo district). The information presented is based upon the author's observations and the available literature, and is an attempt to give the reader an interest and understanding of our Bendigo gecko fauna. For those readers who wish to pursue further details of the natural history of these geckos, more information is given in the cited references. The geckos that occur in the Bendigo district are namely the Marbled Gecko (*Christinus marmoratus* also referred to as *Phyllodactylus marmoratus* in older literature), the Stone Gecko (*Diplodactylus vittatus*), and the Thick Tailed Gecko (*Underwoodisaurus milii*).

Classification and Characteristics

Within the reptile kingdom, most people may readily differentiate lizards from such animals as snakes, crocodiles and turtles. In turn, Australian lizards (order Squamata, suborder Sauria) may be separated into five families, namely the legless lizards (*Pygopodidae*), the goannas or monitors (*Varanidae*), the dragons (*Agamidae*), the familiar skinks (*Scincidae*), and the geckos (*Gekkonidae*). Lizards usually have such characteristics as limbs (some may be quite small or even remnant), a long tail, and an external ear opening. A family of lizards may have certain characteristics (or combinations thereof) that other families may not have. For example, like the legless lizards, the geckos do not have moveable eyelids, however unlike other lizards, in daylight the gecko's pupil may be a narrow vertical slit (Cogger 2000). As with most wildlife, geckos are readily distinguished from other lizards with familiarisation.

Geckos have certain attributes that are similar to, or quite different from, other reptiles. Like snakes, Geckos slough their skin as they grow. Their scales are small, bead-like, and do not overlap each other (in contrast, a snake or a Blue-tongue Lizard have each anterior scale overlapping the posterior scale). The gecko tongue, like our own, is broad and fleshy, while that of a goanna is long and forked. The tail of a gecko varies considerably amongst the family. Some are small and knob-like, others are leaf-shaped. The tail of geckos in the Bendigo district are relatively long and broad (see individual species description). When predators threaten, they may wave their tail and then voluntarily drop it. The tail wiggles and diverts the assailants attention as the gecko runs off. Likewise, if held by the tail or handled roughly, the tail will also drop off. The tail will usually regenerate after a period of time, although it is never quite the same as the original. Geckos are also known to be vocal, letting out a squeak, cough or bark-like noise. The feet of geckos are either modified for ground dwelling (toes are thin and clawed) or tree/rock dwelling (toe pads are broad and flat, like the proverbial "suction pads", which are capable of walking up vertical surfaces), although each species may venture into the other's niche. Geckos have a rather curious walk, the body bending side-ways with each step, which is, in many respects, similar to that of the goanna.

Behaviour

The geckos are inoffensive, or more precisely, they are not dangerous to humans. A small insect on the other-hand does have something to worry about, their diet being small arthropods. Despite their small size, geckos will lunge with its mouth agape in an attempt to bite if harassed. The mouth opens widely and is capable of gripping hold of any finger that comes too close.

While a bite does not necessarily hurt, the pressure and psychological aspect of the bite, may be daunting for the victim.

Geckos are nocturnal and are usually observed with the aid of a spotlight or strong torch beam. Often the spotlighter will hear the lizard scurry over leaf litter before it is seen. Occasionally their eye-shine may be picked up in the light beam. Geckos also frequent human dwellings. In particular the Marbled Gecko may be observed walking up the glass of windows, or searching walls for insects which are invariably attracted to the house lights. The Marbled Gecko is often introduced into suburban houses with firewood.

Geckos do not have an internal means of keeping the body warm and so they rely on external sources, which results in their body temperature being close to ambient night-time air temperatures. They may also raise their body temperature to a suitable level by living under "sun-exposed" rocks. The warmth of the rock radiates the heat to the gecko. Similarly they may "hug" a "sun-warmed rock" with the same result. In general, geckos prefer a lower temperature than that of other lizards, and in some parts of Australia, they may be found in caves where the air is much cooler than the surface temperature (eg. on the Nullarbor Plain). When the temperature drops below an acceptable level, usually from April to August in the Bendigo district, the gecko enters a state of brumation (reptile equivalent of mammal hibernation) in which metabolic activity, or normal bodily functions, almost cease. They remain in this state until the warmer weather arrives (ie. spring).

References

COGGER, H.G. (2000) Reptiles & Amphibians of Australia, 6th edition, New Holland Publishers, Australia.

WILSON, S.K., & KNOWLES, D.G. (1988) Australia's Reptiles; A Photographic Reference to the Terrestrial Reptiles of Australia, Collins Publishers, Australia.

The narrow view gives tunnel vision

Author Alistair Brown in *The Age* 5/3/01
This article was submitted by Stan Pelczynsky as he felt it elegantly expresses his own views on these matters

---

Einstein remarked that a problem could not be solved with the same kind of thinking that created it. Today, many leading thinkers understand that the major social, economic and environmental problems of our time stem from the reductionist way of thinking that has been the hallmark of the 20th century. That is, a way of thinking that reduces the complexity of existence into many elements, in the misguided belief that these little boxes can then be understood and managed in isolation.

Using a metaphor, this is akin to regarding the human body as a collection of different organs, collected together, for convenience, in a bag of skin and bone.

Reductionist thinking lays the foundation for multiple perspectives of the same problem or issue, in turn setting up irreconcilable conflict between alternative points of view, with resolution apparently only possible through compromise. Again, using the health metaphor, this seems like accepting that a healthy body can be achieved with a chronically sick heart and chronically sick lungs. How bizarre.

Real solutions do exist, but will only be found when we start to view the world holistically, as a complex, interacting system.

There is, however, a cruel irony; that those we might look to for solutions – the politicians, bureaucrats, scientists and other professionals – are the people who are most comfortable with reductionist thinking, and tend to be unable to think outside their own box, unable to see the wood for the trees.

From the Mailbag
Author: Elaine Mathison

Each month the club receives a number of newsletters and magazines: some by subscription and some in exchange for Whirrakee. These are available from the club library.

* * * * * * *

HABITAT Australia(ACF)
February 2001

- 21C - Nuclear Free: "Australia faces a choice over its involvement in the discredited and declining nuclear industry. We can create a twenty-first century of peace, prosperity and good environmental and human health. Or we can saddle ourselves and our descendants with dumps in the outback, mines in national parks, and nuclear reactors in the suburbs."

- ACF's Not-so-hot 1000: a survey of the social, environmental and financial performance of Australia's top 100 corporations.

- Environmental Challenge for a New Nation: the reconstruction of a shattered East Timor needs to balance careful environmental planning with the needs of an impoverished community.

* * * * * * *

PARKWATCH(VNPA)
March 2001

"Taking the Plunge" by Chris Smyth explains why the marine parks proposed for Victoria are of world and local significance, and should receive our strongest support.

"In Parks - Wilson's Promontory" by Geoff Durham describes experiences on the circuit walk and the recent changes at the Prom.

"Nature Conservation Review, Victoria,2001" is an edited summary of the third in the series of reviews undertaken over the last 30 years. It examines the state of nature conservation in Victoria, and gives recommendations for major nature conservation issues.

"Walking in the Footsteps of History" by Roger Sievwright describes a recent walk form Mansfield to Wonnangatta Station with many reflections on the history of the track.

* * * * * * *

Also received recently:

*Castlemaine Naturalist(CFNC)
March 2001

- Butterflies at Bullarto Reservoir

*Geelong Naturalist(GFNC)
March 2001

- Olympic Frogs
- The Habitat of Mars

*Newsletter(Ballarat FNC)
March 2001

- Tree Protection Systems

*Field Nats News(FNCV)
March 2001

*Newsletter(Maryborough FNC)
August 2000-February 2001

*Natural Heritage
Summer 2001

*Swifts Across the Strait - Newsletter of the Swift Parrot Recovery program
January 2001

- Swift Parrots in Queensland
- Maryborough's Swift Parrot riches
- Swift Parrot Survey Results 1995-2000

* * * * * * *

March General Meeting
Speaker: Paul Peake
Topic: Barking Owls

Author: Sabine Wilkens

Paul Peake first studied Barking Owls (*Ninox connivens*) near Chiltern in the early 80s. Since then they have been included in the Fauna and Flora Guarantee Act and are listed as an endangered species. There are only about 100 breeding pairs in Victoria, spread widely but thinly, so not many people have heard, let alone seen them.

Looking at records for this species, the dots on the map of Victoria are not only widespread but there are quite a lot of them (more than 500 in Victoria). However, the Barking Owl is easily confused with other owls, e.g. the Boobook Owl or even animals like sugargliders, foxes or peacocks, so it is quite probably that the many sightings include quite a few mis-identifications. To fully appreciate the status of this owl, proper identification and reliable sightings are extremely important.

Barking Owls don't look like other owls, so much of the mis-recordings would come from mis-identified calls. The Barking Owl is more grey compared to the Southern Boobook which is distinctly chocolate brown. Barking Owls also have very large talons and large feet which allows them to chase larger prey species. They have characteristic large yellow eyes, unlike any other owl. They approximate a Sulphur-crested Cockatoo in size and are larger than Southern Boobooks.

It is not easy to identify the habitat which supports the Barking Owl. They breed in hollow trees but are not necessarily present in hollow tree country. It is speculated, however, that their numbers have dramatically declined due to broadscale clearing, timber harvesting and mining. Barking Owls can sometimes be found in country where there are no hollow trees. Red Box makes a common roost tree.

In the vicinity of Bendigo, Dunnolly and Newstead are areas where Barking Owls have been sighted. There are also "concentrations" of them in the Grampians, the Chiltern area and the Red Gum forest along the Murray River.

Characteristically, some cleared land occurs in the vicinity of Barking Owl habitat which the birds use for hunting their prey. They mostly feed on feathery and furry prey. (rabbits, choughs, magpie-larks, galahs) but in summer their diet can include increasing amounts of insects.

A distinctive feature is their call. Pairs defend their territory vigorously, so playing a tape with owl calls attracts them successfully in defence of their area. The call is very much like a bark, the deeper male double bark is closely followed by the higher female double bark. Only the regular occurrence of the double tones distinguishes the owl call from a dog call. Other sounds include the young begging call which is a whirring sound, quite penetrating. The stunning "screaming woman call" is sometimes made by owls that are agitated but often is not known why they make this particular call.

Paul's experience is that playing the Barking Owls sounds in the middle of the night will not only attract owls in defence of their territory but also wake up the dogs and subsequently the farmers in a radius of several kilometres. It is thus unwise to stay in one area for too long.
To locate Barking Owls in the night, the tape is played softly at first and then the volume is slowly increased. The point in time when the owls appear will then give some indication how far away they were at the time.

An encouraging finding is that at all the sites where Paul has heard owls during his 20 year study, they can still be heard. However, there are some well identified threats to Barking Owls, namely clearing of owl habitat and agricultural intensification. This latter activity involves loss of large remaining farm trees, use of pesticides which build up in the food chain, higher stocking rates, rising water tables and salinity and the expansion of irrigated agriculture. The small bits of remnant vegetation associated with farm land are important for Barking Owls and these birds are thus very vulnerable to changing agricultural practices.

Next time you hear a dog barking or a woman screaming in the middle of the night, listen closely...you might be privileged in hearing one of the only hundred or so pairs of Barking Owls in Victoria. Hearing this sound in the bush can be a very scary experience, but once you know what it is...it is most interesting.

Insects (and Spiders)

Author: Jenny Shield

We hope that our workshop on 14 March 2000 will inspire some of us to take a keener interest in insects and similar animals.

Collecting methods
At the workshop, two sheets and lights were set up. The lights attract insects and the sheets provide them with somewhere to rest, to make them easy to collect. Ideally, the collectors monitor the lights continuously during the collecting period. As the night was windy, there weren't many insects on the sheets. The best nights are still, humid and warm.

Several insects and spiders were collected by shaking branches of shrubs into nets. The most productive shrubs were Chinese Scrub *Cassinia arcuata*. The following were collected:

Spiders juveniles except for the unidentified araneid.
Oxyopes rubicundus 7 Lynx Spiders
Neosparassus diana Diana's Badge Spider
Jotus auripes Jumping Spider
Hedana valida Flower Spider
Tmarus sp Flower spider
Diaea sp 2 Flower Spiders
Runcinia elongata Grass Fower Spider
Araneidae: Orb Weavers: 3 small green spiders

Insects
Blattellidae: *Ellipsidion australe* nymph cockroach
Euamastacidae: Morabinae: Grasshopper:
Mantidae: green Praying Mantis
Chrysomelidae: Leaf Beetles: 2 species
Cantharidae: Soldier Beetle
Curculionidae: Weevil
Nogodinidae: Leaf hopper
Eurymelidae: (green bug)
Pentatomidae: Pentatomid Bug:
Acanthosomatidae:*Amphaces* sp.Pentatomid bug
Lepidoptera: Looper Caterpillar

As you can see there is a lot of room for improvement in my knowledge of insects! Insects can also be collected by searching bark, foliage and leaf litter, sorting through leaf litter and pitfall trapping. Pitfall trapping has animal ethics problems as unwanted animals are also trapped. A number of plant-feeding insects can be together in the same container until it is convenient to preserve them, but put only one predatory insect or spider per container.

Preserving Insects:
Insects are killed in a container saturated with ethyl acetate (a major component of finger-nail polish remover). Hard-bodied insects are then pinned, and usually the wings are spread and allowed to dry for 2 or more weeks. Then the label is attached to the pin and the insect stored in a container which is dry and insect-proof. The enemies of dried collections are other insects, mould and accidental damage.

Soft-bodied insects are preserved in 70% ethyl alcohol. Methylated spirits is not a good preservative as it has ingredients which make the specimens brittle. Spiders may also be killed in ethyl acetate vapour and preserved in 70% ethyl alcohol, or dropped directly into the ethyl alcohol solution. "Wet specimens" are kept in vials in larger well-sealing jars filled with 70% ethyl alcohol. It is important to check the jars regularly and top up when required.

Labelling
The following information is recorded in India ink on the label: date and place of collection, name of the collector, and if possible latitude and longitude and altitude of collecting site. Identification for dried insects is placed in the container with the insect. In "wet" collections ID and the collecting information is kept in the label with the specimen.

Obtaining supplies
Those who are good at joinery can make their own insect boxes, with a glass top. Ideally the insects are kept in small cardboard boxes which have foam in the bottom to secure the insect pins. Insect pins, vials etc can be obtained from

Australian Entomological Supplies P/L
P.O. Box 250, Bangalow NSW 2479
Phone (02) 6684 7650 Fax (02) 6684 7188
E-mail austento@nor.com.au
Web site:
http://www.nor.com.au/business/austento

Identification:
Be aware that many species of insects and spiders have not yet been described. Below are the titles of some books which may assist in identifying specimens.

• CSIRO *The Insects of Australia* Melbourne University Press (2 volumes).
• Zborowski P & Storey R *A Field Guide to Insects in Australia* Reed Books
• Hawkeswood T *Beetles of Australia* Angus & Robertson
• Walker KL & Milledge GA *Spiders Commonly Found in Melbourne and Surrounding Regions* Royal Society of Victoria
• Brunet B *Spiderwatch a Guide to Australian Spiders* Reed Books

---

Native Bees create a buzz amongst conservationists

Author: Roger Kavanagh
from *LabNews* February/March 2001, submitted by Peter Ellis

Australia has over 2000 species of native bee, only 10 of which do not sting.
Native stingless bees are small, black about 4 mm long that live in large colonies of hundreds or even thousands, of bees. Though the other solitary, native bees can sting,they are not aggressive and their sting is generally mild.

Unlike their solitary relatives, native stingless bees have a queen bee plus hundreds of female worker bees and some male drone bees in each nest colony. These female worker bees are sterile and may only live seven weeks. However, the queen bee may live for several years. When the queen bee dies she is replaced by a new queen, so the colony can live in the same nest site for decades and some nests have been known to survive for over 50 years.
Colonies of stingless bees usually nest in hollows in living or dead mature trees in NSW, Queensland, the Northern Territory and northern areas of Western Australia. In the most northern areas of Australia, some species are also commonly found occupying hollows in urban situation such as wall cavities and flower pots. Such nests are often deemed a danger to humans and destroyed, though the bees are quite harmless and make good garden pets.

Thousands of stingless bees nests in mature trees are also destroyed each year through land clearing activities associated with land subdivisions. Stingless beekeepers often rescue threatened nests to establish apiaries of boxed nests for honey production and pollination.

Australia's stingless bees produce small amounts of aromatic bush honey, which they store in small resinous pots that resemble bunches of grapes.
The honey is sweet, but the most important reason for people keeping hives of native bees is for conservation, according to CSIRO entomologist, Dr Tim Heard.

"Native bees are important for pollinating native plants. They are especially useful in areas where bush regeneration activities are under way", says Dr Heard.
"CSIRO are also interested in native bees for crop pollination to compliment the important role played by the European honey bee" says Dr Heard. "Our aim is to increase the number of species available for this purpose."
Using a native bee species for crop pollination and as a source of food is also a positive move for the bees,as clearing bush for farming has caused them to vanish from many areas.
"Using a natural resource like native bees may ultimately ensure their protection, " Heard says.

Australia's native stingless bees are low maintenance and are especially suited to family life in the suburbs. In fact,CSIRO research has shown that 56% of native stingless bee keepers kept their hives in suburban backyards.
"People keep native bees for many reasons – enjoyment, conservation, crop pollination, honey production and hive sales", Heard says .

Heard and colleague Anne Dollin recently completed a review of native beekeeping in Australia, which will provide a valuable historical baseline for this rapidly expanding industry.

Native bees are adapted to life in the tropics where there are always flowers around,and the winters are shorter and milder, so they only produce small amounts of honey. Herd points out that wild honey harvesting can harm the colony. The bees need the honey to get through the winter months – and can drown in even small amounts spilt at the nest.
"The honey should only be harvested from native colonies kept in box hives and only at certain times.

Commercial honeybees (*Apis mellifera*) and native bees are not aggressive towards one

another and will forage on the same flowers. However, commercial bees are much better foragers than most native bee species and they can often fly at much lower temperatures. When there is plenty of food available, this should not cause a problem. However in a situation of limited food reserves, the native bee will probably come out second best.

In 1992, one species of bumble bee (*Bombus terrestris*) was introduced accidentally into Tasmania. Andrew Hingston in a 1997 study at the University of Tasmania found that his bumble bee had spread o over 15 000 km2 of Tasmania and appeared to have had a negative impact on some local Tasmanian native bee species. Bumblebees are not presently found on the Australian mainland. Naturally, all efforts should be made to keep it that way.

For more information, see Dr Anne Dollin's Aussie Bee website: www.zeta.org.au/~anbrc/

Some Interesting News from Washington

from:http://www.mnh.si.edu/highlight/spring00/spring00_feature.html

---

Scientists at the Smithsonian's National Museum of Natural History Find Global Warming to be Major Factor in Early Blossoming Flowers in Washington. NMNH Botanist Stanwyn Shetler and colleagues Mones Abu-Asab, Paul Peterson, and Sylvia Stone Orli have analyzed 30 years of observations about the first dates of blossoming for 100 species of plants common to the Washington, DC area. They have found that the rise in the region's average minimum temperatures is producing earlier flowering in 89 of the 100 species observed. On average, the plants are blossoming 4.5 days earlier in 2000 than in 1970 - and for Washington's famous cherry trees, this means that the cherry blossoms are now arriving a week earlier than 30 years ago.

The scientists examined botanical data collected at the Smithsonian's Department of Botany by more than 125 individuals over a 30-year period beginning in 1970 in order to reach their findings. Data were obtained at sites in Washington, D.C.; Arlington, Virginia; Beltsville and Silver Spring, Maryland; and other regional locations.

"This trend of earlier flowering is consistent with what we know about the effects of global warming," said Dr. Stanwyn Shetler. "When we compared the records from the Smithsonian study with local, long-term temperature records we discovered statistically significant correlations. The minimum temperature has been going up over these years and the early arrival of the cherry blossoms appears to be one of the results."

Using data from the National Park Service, Shetler, Abu-Asab, Peterson and Orli also examined two predominant species of Japanese flowering cherries located near the Tidal Basin in Washington, DC, which have been blooming on earlier dates over the past 30 years. The Oriental cherry blossom (*Prunus serrulata*) and the Yoshino cherry blossom (*Prunus* x *yedoensis*) have been reaching peak bloom six and seven days earlier since the 1970s, respectively. This year, the Yoshino variety reached peak bloom on March 20, the second earliest date on record. The average peak bloom date April 4.

Analysis of the Smithsonian database infers that early blooming is not a phenomenon isolated to cherry blossoms. Among the 100 plant species (2 cherry + 98 native or naturalized species) analyzed by the scientists, 89 have shown a consistent trend of flowering earlier and earlier each year. Eleven species in the study actually show a reverse trend by blooming later, including the Japanese honeysuckle, which blooms on average 10.4 days later and the Dutchman's-breeches, opening 3.2 days later.

The consequences of the environmental changes indicated by the earlier flowering could be significant, as Shetler explained, "Based on this study, we can expect a gradually expanding growing season, which may be lengthened at both ends if warmer temperatures prolong the end of summers as well. Over a long period the species composition of our local flora could change. Species like the sugar maple that require a long cold period may die out in our region. Invasive alien species, especially from more southern climes, may become more and more of a problem. Weedy species like false-strawberry that can bloom through relatively mild winters could spread. If these trends continue, persons with allergy problems will experience them earlier because some of the first plants to bloom are wind-pollinated trees, such as the American elm and common alder."

Bendigo Field Naturalists Club Inc.

Speaker Syllabus for General Meetings 2001– Second Wednesday 8:00 pm

Please check each **WHIRRAKEE** for additional events or changes. If a workshop is planned, it will start at 7:00pm. The speaker will be introduced at 8:00 pm.

Date - 2001	Topic	Speaker
11 April	**Urban and Suburban Frogs in the Melbourne Region**	**Dr Kirsten Parris**
9 May	**The World's Most Successful and Smallest Crustaceans**	**John Neil**, LaTrobe University (Bendigo)
5 June	**WORLD ENVIRONMENT DAY - SPECIAL PUBLIC LECTURE**	
13 June	**Implementing a Landscape Approach to Conservation Management in the Goldfields Bioregion**	**Robert Price**, Manager, Flora and Fauna North West Region, DNRE (Bendigo)
11 July	**Pollen Flora of the Box-Ironbark Forest**	**Katherine Legge and Sabine Wilkens**, LaTrobe University (Bendigo)
8 August	**Managing a Saline Environment: the Success of the Loddon-Murray Community's Irrigation Salinity Management Plans**	**Steve Lottkowitz**, DNRE Bendigo
12 September	***Annual General Meeting***	
10 October	**Wildlife Shelters and Wildlife Rescue**	**Garry Cheers, Wildlife Rescue and Information Network Inc.**
14 November	**The Landscape Approach to Biodiversity**	**Geoff Park**, North Central Catchment Management Authority
12 December	**Christmas Dinner** At the Hall, Bring Salad, Casserole or Desert. Come early, to sit down at 6:30, and visit with friends for as long as you like.	

Wildlife Rescue & Information Network Inc.
W.R.I.N. is an organisation dedicated to the care of orphaned, sick or injured native animals.
It is fully endorsed by the Dept of Natural Resources and Environment.
Please call our Emergency Number for Help for Fauna in Need. Phone: 0419 356433

Diary

The General, Bird Observers Group and Mammal Survey Group meetings are held at the Golden Square Senior Citizens Building, Old High Street, Golden Square, unless otherwise indicated.

General Meeting..... please note: new Format

Wednesday, April 11

7:00pm: Workshop on identifying grasses
If you are still interested in grasses, come along to this workshop, either as a teacher (if you know something about grasses) or as a student (if you want to know more about grasses). This workshop was cancelled last month, so if you thought you have missed it, here is another chance. In addition to the workshop, tables with reading material are set up for those present early but not participating in the workshop.
8:00pm: Dr Kirsten Parris will talk about urban and suburban frogs in the Melbourne region.

After the speaker, we shall conclude with reports and observations. Minutes will not be read any more, nor will they be taken. However, notes will be made of club members' observations. This new format will be trialled over the next few months. All comments welcome.

Mammal Study Group
Ring Maurie Lewis for details or confirmation of these excursions and activities (0407427179)

Each Friday a group of enthusiasts are putting up nesting boxes in Spring Gully's Mandurang area. Meet at 16 Vains Street 9am (to 12.00 noon).

21-23 April 2001 Mammal Trapping will be organised by Rob and Glenise Moors. Location to be decided. Other nest box checking activities will be scheduled later in the year.

Starting on the first Sunday in May all the nest boxes in Spring Gully Reservoir will be checked again. Maurie Lewis will be in charge of this activity on each Sunday in May and June. They will start at 10am each day and finish by 1 PM. It is expected that 6 to 8 mornings will be required.

Evening Meeting Activities

April 25 (ANZAAC Day) Maurie Lewis will lead a discussion on Tuan biology and ecology.

May 23 Kerrie Norris will lead a discussion on Antechinus biology and ecology.

Supper
The usual arrangements for supper are as follows: members either bring a plate or pay $1 for supper. This small amount is used to reimburse members who purchase essential supper supplies.

Other Events

Western Victoria Wildlife Group [RSPCA] - WVWG
12th May, 1.30pm
Geoff Williams, Director of the Australian Platypus Conservatory will talk about the platypus, one of Australia's most intriguing animals.
Meetings of the WVWG are held at the Eureka Vetenary Clinic, Creswick Road, Ballarat.
Starting time is usually 1.30 but may alter a little depending on Geoff's schedule.
Brenda and Gary Cheers (who are members of WVWG) are cordially inviting members of the BFNC to come and listen to what promises to be a most interesting session.
Entry is by donation to cover costs.

If anybody wants further information please ring Brenda on 54612970 closer to May 12.

Bendigo Native Plant Group
On **Friday 20 April**, the speaker at the group's monthly meeting will be Michael Marmach, whose topic will be **"The Canning Stock Route"**. This will be a long program and will be presented in two sessions:

Session 1: 6:15pm
Break for evening meal
Session 2: 8:00pm

Michael is well known as a first rate photographer and speaker. Members of BFNC are cordially invited.
Meetings of the Bendigo Native Plant Group are held at the BFNC Clubrooms.